STANDARDIZED PERMIT SERIES DETERMINATION
A, B, C and SMALL QUANTITY C

ECS Refining
705 Reed Street
Santa Clara, CA 95050 **CAD003963592**
Facility Name/Address **EPA I.D. Number**

December 20, 2006
Date

Determine the total volume of hazardous waste treated, or that will be treated, per month and/or the total storage design capacity under the Standardized Permit authorization at this facility. Please check the box that indicates the highest volume of hazardous waste managed.

A. Total hazardous waste treatment volume and/or weight regulated under the standardized permit:

_90,000_ gallons/month liquid and/or _404.25_ tons/month solid.

B. Total hazardous waste storage capacity, at any one time, regulated under the standardized permit:

_38,040 gallons liquid and/or _202.4_ tons/solid.

SERIES	TOTAL MONTHLY TREATMENT VOLUME	TOTAL FACILITY STORAGE DESIGN CAPACITY	CHECK ONE
A	Greater than 50,000 gallons. Greater than 100,000 pounds.	Greater than 500,000 gallons. Greater than 500 tons.	X
B	Greater than 5,000 gallons and less than 50,000 gallons. Greater than 10,000 pounds and less than 100,000 pounds.	Greater than 50,000 gallons and less than 500,000 gallons. Greater than 100,000 pounds and less than 500 tons.	
C	Less than 5,000 gallons. Less than 10,000 pounds.	Less than 50,000 gallons. Less than 100,000 pounds.	
SMALL QUANTITY C	Less than 1,500 gallons. Less than 3,000 pounds.	Less than 15,000 gallons. Less than 30,000 pounds.	

GALLONS - LIQUID HAZARDOUS WASTE
POUNDS/TONS - SOLID HAZARDOUS WASTE

ECS Revised 2/21/2008

Region _____

For DTSC Use Only

STANDARDIZED PERMIT NOTIFICATION FOR EXISTING OR PROPOSED HAZARDOUS WASTE FACILITIES

Please refer to the instructions available from DTSC before completing this form.

Initial Notification for New Facility ☐ **Revised/Renewal Notification for Existing Facility** ☒

I. FACILITY INFORMATION

EPA ID NUMBER CAD003963592 **BOE NUMBER (if available)** HF HQ38-000489 S

NAME (Company or Facility) ECS Refining Texas, LLC dba ECS Refining
(DBA--Doing Business As)

FACILITY ADDRESS 705 Reed Street

CITY Santa Clara **CA** **ZIP** 95050 - 3942

COUNTY Santa Clara

LOCATION (list major cross streets, or nearby landmark)

Intersection of Reed and Grant Streets

(Latitude & Longitude) Latitude: 37° 21' 40" Longitude: 122° 56' 40"

CONTACT PERSON Taggart (Last Name) Kenneth (First Name)

TITLE Vice-President

TELEPHONE NUMBER (408) 988 - 4386

II. MAILING ADDRESS, IF DIFFERENT:

COMPANY NAME (DBA) same

STREET _____

_____

CITY _____ **STATE** ____ **ZIP** _____-_____

COUNTRY _____
(Complete only if not USA)

CONTACT PERSON _____ (Last Name) _____ (First Name)

TELEPHONE NUMBER (_____)_____-_____

STANDARDIZED PERMIT NOTIFICATION FOR EXISTING OR PROPOSED HAZARDOUS WASTE FACILITIES

III. FACILITY OPERATOR INFORMATION

NAME Taggart (Last Name) James L. (First Name)

ADDRESS 705 Reed Street

CITY Santa Clara **STATE** CA **ZIP** 95050 - 3942

TELEPHONE NUMBER (408) 988 - 4386

IV. FACILTIY OWNER INFORMATION

NAME Taggart (Last Name) James L. (First Name)

ADDRESS 705 Reed Street

CITY Santa Clara **STATE** CA **ZIP** 95050 - 3942

COUNTRY (Complete only if not USA)

TELEPHONE NUMBER (408) 988 - 4386

OWNERSHIP STATUS: Federal ☐ State ☐ Public ☐ Private ☒

V. LAND OWNER INFORMATION (705 Reed Street Parcel)

NAME Forsyth (Last Name) Hubert (First Name)

ADDRESS 220 Montgomery Street, Suite 1094

CITY San Francisco **STATE** CA **ZIP** 94104 - 3419

COUNTRY (Complete only if not USA)

TELEPHONE NUMBER (415) 392 - 2914

VI. DESCRIPTION OF BUSINESS ACTIVITIES: SIC CODES 3341 5093

ECS Refining accepts for recycling a variety of metal-bearing hazardous, universal, and non-hazardous wastes. The hazardous wastes accepted are tin/lead solder dross and related items such as tin/lead solder paste and wipes and photochemicals with silver and related items. The universal wastes accepted for recycling are cathode ray tubes (CRTs) and computer monitors, Universal Waste Electronic Devices (UWEDs), and related electronic scrap. Materials are accepted from manufacturers and post-consumer. ECS Refining shreds, classifies and separates these materials to maximize the recycling value.

VII. FACILITY STATUS

A. Other Environmental Permits or Construction Approvals Held or Applied For:

☐	NPDES	☐	HW Full Permit
☐	Waste Discharge Requirements	☐	Hazardous Waste (HW) Permit By Rule
☒	Air Quality Permit	☐	HW Conditional Authorization
☐	Land Use Permit	☐	HW Conditional Exemption
☒	Local Industrial Sanitation District	☒	HW Transporter Registration
☐	TSCA PCB Permit		

Other_____

B. Is facility on Indian Lands? Yes ☐ **No** ☒

STANDARDIZED PERMIT NOTIFICATION FOR EXISTING OR PROPOSED HAZARDOUS WASTE FACILITIES

VIII. HAZARDOUS WASTE INFORMATION FOR ENTIRE SITE

A. 4 Total number of hazardous waste storage units

0 Number of storage units under full HW facility permit

4 Number of storage units under standardized permit

B. 8 Total number of hazardous waste treatment units

0 Number of treatment units under full HW facility permit

8 Number of treatment units under standardized permit

0 Number of treatment units under HW permit by rule

0 Number of treatment units under HW conditional authorization

0 Number of treatment units under HW conditional exemption

C . Briefly describe all hazardous waste treatment and/or storage activities to be conducted at the facility. Include treatment under a full permit, Permit by Rule, treatment under Conditional Authorization, treatment under Conditional Exemption, and storage and/or treatment under the Standardized Permit. Annotate the description of each of the storage/treatment activities as Permit By Rule (PBR), Conditional Authorization (CA), Conditional Exemption (CE), or Standardized Permit (SP) as appropriate. Note that detailed unit-specific information forms for each unit that is or will be authorized under the Standardized Permit are required attachments to this notification. (Modify the form if more spaces are needed)

All hazardous waste related activities are conducted under the Standardized Permit program. The storage areas for hazardous waste consist of four areas with tank and/or drum storage. Area I is permitted to store solid hazardous waste. Area IIa is permitted to store drums of liquid hazardous waste and contains tank storage for liquid hazardous waste. Area IIb is permitted to store drums of liquid hazardous waste and contains tank storage of liquid hazardous wastes. Area IV is permitted to store drums of solid hazardous wastes and drums of liquid hazardous waste, provided they are on containment pallets. Area III is not for hazardous waste storage but is used to store scrap, non-hazardous wastes, or universal wastes. Treatment units include two units to treat photochemicals with silver and other metal-bearing wastewaters (Units #1 and #3), three crucible furnaces for reclamation of various metal-bearing wastes (Units #7, #20, and #21) and one enclosed furnace for reclamation of tin/lead from solder paste and for processing of non-hazardous metal samples (Unit #15). The E-Waste/Printed Circuit Board (PCBd) Shredder (Unit #27) is included in this application to ensure that the shredder may be used for non-RCRA scrap materials that are not classified as universal wastes. In addition, this permit provides for the installation of a CRT Glass Washing Unit (Unit #28) that will remove the coatings from shredded CRT glass in order to maximize its recycling value. Equipment used to process non-hazardous or universal waste that is not included in this permit includes shredders for electronic scrap and CRTs, ball mills for processing of non-hazardous scrap, a screener for processing of non-hazardous scrap, and a reverberatory furnace for processing of non-hazardous silver-bearing materials.

STANDARDIZED PERMIT NOTIFICATION FOR EXISTING OR PROPOSED HAZARDOUS WASTE FACILITIES

IX. REQUIRED ATTACHMENTS

☒ **A. A scaled map to show the facility location including major freeways and cross streets.**

☒ **B. A scaled diagram to show the facility site/plot map indicating the buildings, parking lots, and landscape areas.**

☒ **C. A scaled diagram to show the locations of hazardous waste management units to be permitted under the standardized permit.**

☒ **D . A unit description information sheet for each of the hazardous waste storage and/or treatment units that will be under the Standardized Permit.**

X. OWNER CERTIFICATION

"I certify that the unit or units described in these documents will meet the eligibility and operating requirements of state statutes and regulations for the standardized permit tier. I understand that I am required to provide financial assurance for this facility, and I am required to conduct a corrective action program as part of the standardized permit application to be submitted to the Department of Toxic Substances Control."

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who will manage the system or those directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for known violations."

Name (Print or Type)	**Title**
Signature	**Date Signed**

XI. OPERATOR CERTIFICATION

"I certify that the unit or units described in these documents will meet the eligibility and operating requirements of state statutes and regulations for the standardized permit tier. I understand that I am required to provide financial assurance for this facility, and I am required to conduct a corrective action program as part of the standardized permit application to be submitted to the Department of Toxic Substances Control."

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who will manage the system or those directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for known violations."

Name (Print or Type)	**Title**
Signature	**Date Signed**

II. LAND OWNER CERTIFICATION

I [We] certify under penalty of law that I [we] am [are] familiar with the operations conducted by _____ [Names of Operators] of _____[Name of Facility] at _____[address] on the property owned by _____[owner's name or his/her designee], that I [we] have reviewed this permit application, and to the best on my [our] knowledge, information, and belief, find it to be true and accurate. I [We] understand this application is being submitted for the purpose of obtaining a Standardized Permit to operate a hazardous waste storage and treatment facility.

I [We] understand fully that I [we], as the land owner, located thereon, am [are] jointly and severally responsible for compliance with applicable provisions of the California Health and Safety Code, its implementing regulations and any permit issued pursuant to the applications of these regulations.

Name (print or type)	**Title**	**Name (print or type)**	**Title**
Signature	**Date**	**Signature**	**Date**

HAZARDOUS WASTE FACILITY STANDARDIZED PERMIT UNIT-SPECIFIC FORM

(NOTE: copy this form, and complete a separate form for each hazardous waste management unit that is or will be regulated under the Standardized Permit)

UNIT NAME #10 Storage Area I

I. STORAGE AREA

DIMENSIONS OF CONTAINER STORAGE AREA OR TANK FARM (length and width)	PROCESS CODE	# OF CONTAINERS OR TANKS	TOTAL STORAGE VOLUME	UNIT OF MEASURE
10'L x 5'W	S1	20 55-gallon drums	8.8	tons

II. WASTE STORED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
Exempt, see WAP	181	Tin/lead solder dross	S1	100% Lead Typically 63% Tin/ 37% Lead	8.8	tons
Exempt, see WAP	181	Tin/lead oxides	S1	100% Lead Typically 63% Tin/ 37% Lead	Included in above total	

(Modify the form if more than 5 waste streams are stored in this unit)

III. DESCRIPTION AND LOCATION OF STORAGE UNIT

This storage unit is located in the Solder Processing Room, at the Northeast corner of the 705 Reed Street building. It is designed to be used to store a small quantity of solder dross that is to be processed.

HAZARDOUS WASTE FACILITY STANDARDIZED PERMIT UNIT-SPECIFIC FORM

(NOTE: copy this form, and complete a separate form for each hazardous waste management unit that is or will be regulated under the Standardized Permit)

UNIT NAME #11a Storage Area IIa

III. STORAGE AREA

DIMENSIONS OF CONTAINER STORAGE AREA OR TANK FARM (length and width)	PROCESS CODE	# OF CONTAINERS OR TANKS	TOTAL STORAGE VOLUME	UNIT OF MEASURE
47' 8"L x 27'W x 6"H	S1, T2	20 55-gallon drums Tanks Tank A – 3,000 gallons Tank B – 3,000 gallons	7,100	gallons

IV. WASTE STORED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
D011, see WAP	541	Photochemicals with silver	S1 S2 T2	5% Silver	7,100	gallons
Exempt	171	Sludge with silver	S1	See WAP	Included with above	
D008*	141	Off-specification, aged, or surplus inorganics * See WAP for additional waste codes	S1	See WAP	Included with above	
D008*		Polymeric resin waste * see WAP for additional waste codes	S1	See WAP	See above	
Exempt	171	Filters with silver	S1	See WAP	See above	
See WAP	See WAP	Metal-bearing wastewaters	S1, S2 T2	See Waste Analysis Plan		

(Modify the form if more than 5 waste streams are stored in this unit)

III. DESCRIPTION AND LOCATION OF STORAGE UNIT

This storage unit is located in the Silver Processing Room (Area IIa). The room holds two treatment tanks associated with processing Unit #1 and Unit #3, The room also serves as a steel wool column decanting station (unregulated) and contains drying ovens for drying steel wool (unregulated activity).

HAZARDOUS WASTE FACILITY STANDARDIZED PERMIT UNIT-SPECIFIC FORM

(NOTE: copy this form, and complete a separate form for each hazardous waste management unit that is or will be regulated under the Standardized Permit)

UNIT NAME #11b Storage Area IIb

V. STORAGE AREA

DIMENSIONS OF CONTAINER STORAGE AREA OR TANK FARM (length and width)	PROCESS CODE	# OF CONTAINERS OR TANKS	TOTAL STORAGE VOLUME	UNIT OF MEASURE
85'L x 30'W x 9"H	S1, T2	160 55-gallon drums Tanks Tank 1 – 2,500 gallons Tank 2 – 2,500 gallons Tank 3 – 2,500 gallons Tank C – 3.200 gallons	19,500	gallons

VI. WASTE STORED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
D011, see WAP	541	Photochemicals with silver	S1 S2 T2	5% Silver	19,500	gallons
Exempt	171	Sludge with silver	S1	See WAP	Included with above	
D008*	141	Off-specification, aged, or surplus inorganics * See WAP for additional waste codes	S1	See WAP	Included with above	
D008*		Other metal-bearing sludges * See WAP for additional waste codes	S1	See WAP	Included with above	
D008*		Polymeric resin waste * see WAP for additional waste codes	S1	See WAP	See above	
Exempt	171	Filters with silver	S1	See WAP	See above	
See WAP	See WAP	Metal-bearing wastewaters	S1, S2 T2	See Waste Analysis Plan		

(Modify the form if more than 5 waste streams are stored in this unit)

III. DESCRIPTION AND LOCATION OF STORAGE UNIT

This storage unit is located in the Evaporator Area (Area IIb). The area holds four treatment tanks associated with processing Unit #1 and Unit #3, The area also holds the Drum Washing Station

(Unit #23) and the Vacuum Evaporation Unit (Unit #3) .

HAZARDOUS WASTE FACILITY STANDARDIZED PERMIT UNIT-SPECIFIC FORM

(NOTE: copy this form, and complete a separate form for each hazardous waste management unit that is or will be regulated under the Standardized Permit)

UNIT NAME #13 Storage Area IV

VII. STORAGE AREA

DIMENSIONS OF CONTAINER STORAGE AREA OR TANK FARM (length and width)	PROCESS CODE	# OF CONTAINERS OR TANKS	TOTAL STORAGE VOLUME	UNIT OF MEASURE
62'L x 58'W	S1	Up to 208 55-gallon drums liquid 440 55-gallon drums (or balance) solids	11,440 387,200	Gallons Pounds

[continued on next page]

VIII. WASTE STORED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
Exempt, See WAP	181	Tin/lead solder dross	S1	100% Lead	Total drums in area not to exceed 648 55-gallon drums or equivalent	
Exempt	221	Waste oil	S1	100% Oil	220	gallons
Exempt, See WAP	181	Tin/lead oxides	S1	100% Lead	See above	
D008	181	Tin/lead solder paste and wipes	S1	15% Lead	See above	
D008	181	Ash	S1	100 % Lead	See above	
D011 See WAP	541	Photochemicals with silver	S1	5% Silver	See above	
Exempt	171	Sludge with silver	S1	50% Silver	See above	
D008*	141	Off-specification, aged, or surplus inorganics * see WAP for additional waste codes	S1	See WAP	See above	
D008*		Laboratory chemical waste * see WAP for additional waste codes	S1	See WAP	See above	
D008*		Metal dust/machining waste * see WAP for additional waste codes	S1	See WAP	See above	
D008		Other metal-bearing sludges * see WAP for additional waste codes	S1	See WAP	See above	
Exempt	591	Baghouse waste	S1	See WAP	See above	
D008*		Polymeric resin waste * see WAP for additional waste codes	S1	See WAP	See above	
Exempt	171	Filters with silver	S1	See WAP	See above	
Exempt	171	Filters with lead	S1	See WAP	See above	
D011	181	Wipes with silver	S1	See WAP	See above	
D011	181	Miscellaneous residue with silver	S1	See WAP	See above	
D008	181	Miscellaneous residue with lead	S1	See WAP	See above	
See WAP	See WAP	Metal-bearing wastewaters	S1	See Waste Analysis Plan		

(Modify the form if more than 5 waste streams are stored in this unit)

III. DESCRIPTION AND LOCATION OF STORAGE UNIT

This storage unit is located opposite the Receiving Area. The area holds three rows of liquid photochemicals with silver, double-stacked, on containment pallets. The remaining rows are used for storage of solid hazardous and/or non-hazardous wastes. The first three rows may also be used for storage of solid hazardous or non-hazardous waste if it is not filled with liquids. The quantity of each waste type stored is variable and unpredictable; however, the total number of drums to be stored will not exceed 648.

HAZARDOUS WASTE FACILITY STANDARDIZED PERMIT UNIT-SPECIFIC FORM

UNIT NAME Photochemical Processing Unit (Unit #1)

I. TREATMENT PROCESS

PROCESS DESCRIPTION	PROCESS CODE	# OF EQUIPMENT	PROCESS DESIGN CAPACITY	UNIT OF MEASURE
Recovery of silver from photochemicals with silver or metals from other metal-bearing wastewaters	T2	Unit #1	1,500	Gallons per day

II. WASTE TREATED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
D011, see WAP	541	Photochemicals with silver	T2	5% silver	1,500	Gallons per day
See WAP	See WAP	Metal-bearing wastewaters	T2	See WAP	Included with above capacity	

(Modify the form if more than 5 waste streams are treated by this process)

III. NARRATIVE DESCRIPTION OF TREATMENT UNIT

Unit #1 (Photochemical Processing Unit) removes the silver from liquid photochemical waste. There are two types of treatment that may occur using this unit and equipment—either metallic replacement of the silver for iron using metallic replacement cartridges, or using a proprietary chemical (S-ROM) in conjunction with carbon filtration to remove silver from the waste stream. The S-ROM precipitation also has the capability to remove small amounts of other metal contaminants, such as chromium or zinc. As such, other metal-bearing wastewaters may also be treated in this unit.

HAZARDOUS WASTE FACILITY STANDARDIZED PERMIT UNIT-SPECIFIC FORM

UNIT NAME Vacuum Evaporation Unit (Unit #3)

I. TREATMENT PROCESS

PROCESS DESCRIPTION	PROCESS CODE	# OF EQUIPMENT	PROCESS DESIGN CAPACITY	UNIT OF MEASURE
Recovery of silver from photochemicals with silver or metals from other metal-bearing wastewaters	T2	Unit #3	1,500	Gallons per day

II. WASTE TREATED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
D011, See WAP	541	Photochemicals with silver	T2	5% silver	1,500	Gallons per day
See WAP	See WAP	Metal-bearing wastewaters	T2	See WAP	Included with above capacity	

(Modify the form if more than 5 waste streams are treated by this process)

III. NARRATIVE DESCRIPTION OF TREATMENT UNIT

Unit #3 (Vacuum Evaporation Unit) removes the water from liquid photochemical waste or other metal-bearing wastewaters. Under vacuum, the double-effect evaporator removes water from the wastewaters and recondenses it into a holding tank for testing. The treated water is tested for silver level and either discharged under permit to the POTW or is shipped off-site as a non-hazardous waste. The sludge (or concentrate) from the evaporator may be smelted on-site for metal recovery or shipped off-site for further recovery.

HAZARDOUS WASTE FACILITY STANDARDIZED PERMIT UNIT-SPECIFIC FORM

UNIT NAME Hot Pot Furnace (Unit #7)

I. TREATMENT PROCESS

PROCESS DESCRIPTION	PROCESS CODE	# OF EQUIPMENT	PROCESS DESIGN CAPACITY	UNIT OF MEASURE
Melting of silver flake or other metal-bearing wastes	T2	Unit #7	50	Pounds per hour

II. WASTE TREATED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
Exempt	Exempt	Silver flake	T2	99% silver	50	pounds per hour
See WAP	See WAP	Other metal-bearing sludges	T2	See WAP	Included with above capacity	
See WAP	See WAP	Metal dust/machining waste	T2	See WAP	Included with above capacity	
See WAP	See WAP	Off-specification aged or Surplus inorganics	T2	See WAP	Included with above capacity	
See WAP	See WAP	Laboratory chemical waste	T2	See WAP	Included with above capacity	

(Modify the form if more than 5 waste streams are treated by this process)

III. NARRATIVE DESCRIPTION OF TREATMENT UNIT

Unit #7 (Hot Pot) is a gas-fired pot crucible furnace used to melt silver flake into silver bars. It may also be used for recovery of small lots of other precious metals such as platinum and palladium. The furnace is generally used for non-hazardous and unregulated wastes but may also be used for other metal-bearing wastes as listed above.

HAZARDOUS WASTE FACILITY STANDARDIZED PERMIT UNIT-SPECIFIC FORM

UNIT NAME Tray Furnace (Unit #15)

I. TREATMENT PROCESS

PROCESS DESCRIPTION	PROCESS CODE	# OF EQUIPMENT	PROCESS DESIGN CAPACITY	UNIT OF MEASURE
Recovery of tin/lead metal from tin/lead solder paste and wipes	T2	Unit #15	25	Pounds per hour

II. WASTE TREATED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
D008	181	Tin/lead solder paste and wipes	T2	15% lead	25	Pounds per hour
See WAP	See WAP	Other metal-bearing sludges	T2	See WAP	Included with above capacity	
See WAP	See WAP	Metal dust/machining waste	T2	See WAP	Included with above capacity	
See WAP	See WAP	Off-specification aged or Surplus inorganics	T2	See WAP	Included with above capacity	
See WAP	See WAP	Laboratory chemical waste	T2	See WAP	Included with above capacity	
See WAP	See WAP	Filters with silver	T2	See WAP	Included with above capacity	
See WAP	See WAP	Filters with Lead	T2	See WAP	Included with above capacity	
See WAP	See WAP	Miscellaneous residue with silver	T2	See WAP	Included with above capacity	
See WAP	See WAP	Miscellaneous residue with lead	T2	See WAP	Included with above capacity	
See WAP	See WAP	Wipes with silver	T2	See WAP	Included with above capacity	

(Modify the form if more than 5 waste streams are treated by this process)

III. NARRATIVE DESCRIPTION OF TREATMENT UNIT

Unit #15 (Tray Furnace) is a gas-fired enclosed furnace that is used to treat tin/lead solder paste and wipes and produce bars of tin/lead solder. It is also used on non-hazardous materials, such as to prepare samples of shredded printed circuit boards for melting in the crucible furnaces.

UNIT NAME 600 Crucible Furnace (Unit #20)

I. TREATMENT PROCESS

PROCESS DESCRIPTION	PROCESS CODE	# OF EQUIPMENT	PROCESS DESIGN CAPACITY	UNIT OF MEASURE
Recovery of metal	T2	Unit #20	360	Pounds per hour

II. WASTE TREATED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
Exempt	181	Tin/lead solder dross	T2	100% lead	360	Pounds per hour
See WAP	See WAP	Other metal-bearing sludges	T2	See WAP	Included with above capacity	
See WAP	See WAP	Metal dust/machining waste	T2	See WAP	Included with above capacity	
See WAP	See WAP	Off-specification aged or Surplus inorganics	T2	See WAP	Included with above capacity	
See WAP	See WAP	Laboratory chemical waste	T2	See WAP	Included with above capacity	
Exempt	Exempt	Silver flake	T2	See WAP	Included with above capacity	

(Modify the form if more than 5 waste streams are treated by this process)

III. NARRATIVE DESCRIPTION OF TREATMENT UNIT

Unit #20 (600 Crucible Furnace) is a gas-fired tilt crucible furnaces used to melt samples of printed circuit boards with copper for assay purposes (an unregulated activity). It may also be used to recover metal from hazardous wastes.

UNIT NAME 430 Crucible Furnace (Unit #21)

I. TREATMENT PROCESS

PROCESS DESCRIPTION	PROCESS CODE	# OF EQUIPMENT	PROCESS DESIGN CAPACITY	UNIT OF MEASURE
Recovery of metal	T2	Unit #21	260	Pounds per hour

II. WASTE TREATED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
Exempt	181	Tin/lead solder dross	T2	100% lead	260	Pounds per hour
See WAP	See WAP	Other metal-bearing sludges	T2	See WAP	Included with above capacity	
See WAP	See WAP	Metal dust/machining waste	T2	See WAP	Included with above capacity	
See WAP	See WAP	Off-specification aged or Surplus inorganics	T2	See WAP	Included with above capacity	
See WAP	See WAP	Laboratory chemical waste	T2	See WAP	Included with above capacity	
Exempt	Exempt	Silver flake	T2	See WAP	Included with above capacity	

(Modify the form if more than 5 waste streams are treated by this process)

III. NARRATIVE DESCRIPTION OF TREATMENT UNIT

Unit #21 (430 Crucible Furnace) is a gas-fired tilt crucible furnaces used to melt samples of printed circuit boards with copper for assay purposes (an unregulated activity). It may also be used to recover metal from hazardous wastes.

UNIT NAME E-Waste/Printed Circuit Board Shredder (Unit #27)

I. TREATMENT PROCESS

PROCESS DESCRIPTION	PROCESS CODE	# OF EQUIPMENT	PROCESS DESIGN CAPACITY	UNIT OF MEASURE
Shredding of metal-bearing hazardous, nonhazardous, or universal waste	T2	Unit #27	30,000	Pounds per hour

II. WASTE TREATED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
D011	181	Miscellaneous residue with silver	T2	100% silver	40,000	Pounds per month
D008	181	Miscellaneous residue with lead	T2	100% lead	Included with above capacity	
None	None	Slag	T2	See WAP	Included with above capacity	
None	None	Electronic scrap	T2	See WAP	Included with above capacity	
None	None	Computer monitors/CRTs/Televisions	T2	See WAP	Included with above capacity	

(Modify the form if more than 5 waste streams are treated by this process)

III. NARRATIVE DESCRIPTION OF TREATMENT UNIT

Unit #27 (E-Waste/Printed Circuit Board Shredder) consists of two shredders in-line that are designed to reduce to variable particle size (typically one to two inches) electronic scrap, cathode ray tubes, computer monitors, or televisions. This unit is included in this standardized permit as a permitted unit because certain types of electronic scrap or manufacturing scrap may be classified by the generator as hazardous waste, and not eligible for handling as a universal waste. The permit covers the shredding units themselves, and does not include the separation equipment that is in line after the shredder. Use of Unit #27 allows these materials to be prepared for shipment to primary smelters or other refiners for ultimate material recovery.

Note: The Process Design Capacity of this unit is 30,000 lbs/hr but this unit is not operated at capacity for processing of hazardous wastes. The unit is mostly used to process universal waste electronic devices. The permitted capacity for hazardous waste treatment is set at 40,000 lbs/month.

UNIT NAME CRT Glass Washing Unit (Unit #28)

I. TREATMENT PROCESS

PROCESS DESCRIPTION	PROCESS CODE	# OF EQUIPMENT	PROCESS DESIGN CAPACITY	UNIT OF MEASURE
Washing of CRT glass to remove coatings	T2	Unit #28	20,000	Pounds per hour

II. WASTE TREATED

WASTE CODE(S)		WASTE DESCRIPTION	PROCESS CODE(S)	MAX. CONCENTRATION	ESTIMATED QUANTITY	UNIT OF MEASURE
RCRA	CA					
None	None	CRT glass	T2	25% lead	20,000	Pounds per hour

(Modify the form if more than 5 waste streams are treated by this process)

III. NARRATIVE DESCRIPTION OF TREATMENT UNIT

Unit #28 (CRT Glass Washing Unit) is designed to wash the phosphor coatings from prepared Cathode Ray Tube (CRT) Glass. Removal of the coatings increases the recycling value of the glass and allows greater options for domestic and overseas recycling.

SUMMARY OF EQUIPMENT INFORMATION (EXCLUDING STORAGE DRUMS/CONTAINERS)

FACILITY EQUIPMENT NAME	PROCESS CODE	CAPACITY	DIMENSION	CONSTRUCTION MATERIAL	YEAR BUILT
Photochemical Processing Unit (Unit #1)	T2	1,500 gpd	See Section V	HDPE	1994 Tanks replaced at various times
Vacuum Evaporation Unit (Unit #3)	T2	1,500 gpd	See Section V	Stainless Steel and HDPE	1994
Hot Pot Furnace (Unit #7)	T2	50 lbs/hr	See Section V	Steel, refractory and removable silicon/carbide crucibles	1991
Tray Furnace (Unit #15)	T2	25 lbs/hr	See Section V	Steel, refractory brick	1991
600 Crucible Furnace (Unit #20)	T2	360 lbs/hr	See Section V	Steel, refractory, and Removable silicon/carbide crucibles	1985
430 Crucible Furnace (Unit #21)	T2	260 lbs/hr	See Section V	Steel, refractory, and Removable silicon/carbide crucibles	1980
E-Waste/Printed Circuit Board Shredder	T2	30,000 lbs/hr	See Section V	Steel	2007
CRT Glass Washing Unit	T2	20,000 lbs/hr	See Section V	HDPE and polymer materials	2008 (estimate)

(Modify the form and insert additional rows if needed)

CODES TO BE USED IN THESE TABLES:

FACILTY EQUIPMENT NAME: The name or identification assigned by the Facility, e.g. Tank A, Furnace #1, etc.

PROCESS CODES: S1 – Storage in containers
S2 - Storage in tanks
T1 – Treatment in containers
T2 - Treatment in tanks

CAPACITY: maximum equipment storage capacity or equipment monthly treatment rate

DIMENSIONS:
Container or drums for treatment - diameter and height in inches (in), feet (ft),
Tanks, reactors, vats, furnaces, filter press, etc. - diameter, length, width, and height in inches (in), feet (ft),
Other Types of Units - appropriate units of measure; please clearly define the units.

CONSTRUCTION MATERIAL: carbon steel, stainless steel, fiberglass, etc.

YEAR BUILT: Enter the year when the equipment was built, if known; otherwise enter “unknown”.

ECS REFINING

UNIT SUMMARY SHEET

Unit	Description	Unit	Description
1	Photochemical Processing Unit	14	Closed Unit
2	Closed Unit	15	Tray Furnace
3	Vacuum Evaporator	16	Shredder A (NR)
4	Closed Unit	17	Closed Unit
5	Drying Ovens (NR)	20	600 Crucible Furnace
6	Ball Mills (NR)	21	430 Crucible Furnace
7.	Hot Pot Furnace	22	Reverberatory Furnace (NR)
8	Closed Unit	23	Drum Wash (NR)
9	Closed Unit	24	Closed Unit
10	Storage Area I	25	Baghouses (regulated by BAAQMD)
11a	Storage Area IIa	26	CRT/Monitor Shredder (NR)
11b	Storage Area IIb	27	E-Waste/Printed Circuit Board Shredder (Shredder unit permitted, not eddy current separation device)
12	Storage Area III (Not a hazardous waste storage unit)	28	CRT Glass Washing Unit
13	Storage Area IV	NR	Not Regulated

ENVIRONMENTAL INFORMATION FORM

The following information is requested pursuant California Code of Regulations, Title 14, Section 15063(e). This information will be used by the Department of Toxic Substances Control (DTSC) in conducting an Initial Study to determine if the proposed project may have a significant effect on the environment. The findings of the Initial Study will assist DTSC in determining whether an Environmental Impact Report, Negative Declaration or other environmental document should be prepared pursuant the California Environmental Quality Act (CEQA).[1]

Instructions:

Provide the information requested below and within each of the environmental resource categories (use additional sheets, if necessary). If the item is not applicable to the project, include a brief explanation as to why it would not be applicable. Include the name, title and page numbers for all reference documents used in support of the information provided. If an individual is used as a reference, please include name, title, employer, and date of the interview. Attach copies of all references.

PROJECT TITLE:
ECS Refining Standardized Permit Renewal

PROJECT ADDRESS:	CITY:	COUNTY:
705 Reed Street	Santa Clara	Santa Clara
PROJECT SPONSOR:	CONTACT:	PHONE:
ECS Refining	Beverly Pester	(408) 988-4386

PROJECT DESCRIPTION:
This project is a renewal of an existing standardized permit that authorizes ECS Refining to treat, store and recycle several metal-bearing waste streams that do not require a RCRA permit for recycling. There area two broad categories of hazardous wastes included in the permit: tin/lead solder dross and related wastes, and photochemicals with silver and related wastes. The scope of the permit is not to be changed upon the renewal, and the areas permitted for hazardous waste storage will decrease. The site is located in an area zoned for Heavy Industry and has been located at the same site since 1980. The use of the site for this operation is in accordance with City of Santa Clara guidelines for hazardous operations location.

1. Aesthetics

Description of Baseline Environmental Conditions:

a. Describe the site's proximity to a scenic vista.

The site is located in an area zoned "Heavy Industry" and is not near any scenic vistas.

b. Describe the site's proximity to a state scenic highway that contains scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings.

The site is not located near any state scenic highways.

c. Describe the existing visual character or quality of the site and its surroundings.

The visual character of the site and the surrounding area is one of warehouses and industrial buildings. Most of the buildings in the area were constructed before 1970. The ECS Refining site itself is unique, in that it has a landscaped area in the front of the building with trees and flowering shrubs. Other buildings in the area have only paved parking lots.

d. Describe existing sources of light at and in proximity to the site.

The three warehouses that comprise the ECS Refining site all have overhead lighting installed and skylights. In addition, roll-up warehouse doors are kept open during business hours and allow natural light to enter the warehouse. Exterior yard areas are lighted during nighttime as a security measure, with lights that are approximately 2,400 watts.

[1] Pub. Resources Code, div. 13, § 21000 et seq

References Used: None applicable.

2. Agricultural Resources

Description of Baseline Environmental Conditions:

a. Indicate if the site is located on or in proximity to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency.

The site is located in an area zoned by the City of Santa Clara "MH—Heavy Industry" and has been zoned in this manner since before ECS Refining occupied the site in 1980. The City of Santa Clara Zoning Map (attached) indicates that there are no areas zoned for farmland in the immediate vicinity.

b. Indicate if the site is located on or in proximity to land zoned for agriculture use, or under Williamson Act contract.

As indicated by the City of Santa Clara Zoning Map, the site is not located on or in proximity to land zoned for agriculture use.

References Used:

a. and b.) City of Santa Clara Zoning Map. Available online at http://www.ci.santa-clara.ca.us/pdf/plans_ord_pdf/zoning2005.pdf. Accessed October 2, 2006.

3. Air Quality

Description of Baseline Environmental Conditions:

a. Identify the applicable air quality management district having jurisdiction over the air basin where the site is located.

The site is located in the Bay Area Air Quality Management District.

b. Identify the criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

The Bay Area has non-attainment status for the national 8-hour ozone concentration.

c. Describe all equipment or processes that would be stationary or mobile sources of air emissions or odors, and indicate whether a permit from the applicable air quality management district would be required for such equipment or processes, or any other aspect of the project.

All potential sources of air pollutants, whether they handle hazardous wastes or not, are included in the Permit to Operate issued by the Bay Area Air Quality Management District. The following table presents the BAAQMD source numbers and a description of pollutant-emitting equipment

Source #	***Description***	***Source #***	***Description***	***Source #***	***Description***
S-1	Solder furnace	S-14	Tray Furnace	S-22	Small ball mill
S-3	Hot Pot furnace	S-15	Drying oven	S-24	Boiler
S-6	430 Crucible furnace	S-17	Drying oven	S-25	Cooling tower
S-8	3000 Pot furnace	S-18	Drying oven	S-26	SSI Shredder
S-9	Drying oven	S-19	Screener	S-29	Reverberatory furnace
S-11	600 Crucible furnace	S-20	Ball Mill 1	S-30	CRT/Monitor Shredder
S-13	A Shredder	S-21	Ball Mill 2		

d. Indicate if the site is a source of Naturally Occurring Asbestos.

The site is not a source of Naturally Occurring Asbestos and is fully paved.

References Used:

b. BAAQMD web site. http://www.baaqmd.gov/pln/air_quality/ambient_air_quality.htm. Accessed September 8, 2006.
c. ECS Refining "Permit to Operate" for Plant #1658 issued annually by the Bay Area Air Quality Management District. Current permit expires July 1, 2007.

4. Biological Resources

Description of Baseline Environmental Conditions:

a. Identify any candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service that may be present at or in close proximity to the site.

Because the site is located in a heavily industrial area and near the San Jose International Airport, there are not any areas that harbor special status species on or in close proximity to the site. The City of Santa Clara General Plan notes several potentially threatened species that possibly live within the City boundaries but does not indicate that they live in close proximity to the site. The site has been developed since 1955 and is not near to any riparian habitat that would harbor endangered species.

b. Identify any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service that may be present at or in close proximity to the site.

As indicated by the City of Santa Clara Zoning Map and City of Santa Clara General Plan Map, there are no riparian habitats or sensitive natural community areas in close proximity to the facility.

c. Identify any federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) that may be present at or in close proximity to the site.

The Santa Clara County Open Space Authority does not identify any protected marshlands or vernal pools in close proximity to the site. The nearest marshland is the Alviso Slough, located Northwest of the facility.

d. Identify any native resident, migratory fish, wildlife species, nursery sites or corridors that may be present at or in close proximity to the site.

None are identified in close proximity to the site.

e. Identify any local policies or ordinances, such as a tree preservation policy, protecting biological resources that may be present at or in close proximity to the site.

The City of Santa Clara General Plan has elements that address protection of flora and fauna (Section 5.3), Water Resources (Section 5.4), Water Quality (Section 5.5), Hazardous Materials Use (Section 5.6), Noise (Section 5.7), Air Quality (Section 5.9), Open Space Preservation (Section 5.10) and preservation of Archeological Resources (Section 5.11).

f. Identify any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan that may be applicable to biological resources present at or in close proximity to the site.

No biological resources are present at or in close proximity to the site.

References Used:

a. City of Santa Clara General Plan, Appendix. Available online at http://www.ci.santa-clara.ca.us/pdf/collateral/3081-GeneralPlan-Chapter7.pdf. Accessed October 3, 2006.

b. City of Santa Clara General Plan Map available online at http://www.ci.santa-clara.ca.us/pdf/plans_ord_pdf/GeneralPlan2005.pdf. Accessed October 3, 2006.

City of Santa Clara Zoning Map. Available online at http://www.ci.santa-clara.ca.us/pdf/plans_ord_pdf/zoning2005.pdf. Accessed October 2, 2006

c. Santa Clara Open Space Authority, Areas of Interest Map. Available online at http://www.openspaceauthority.org/Preservation/Study_Areas--An_Overview.htm. Accessed October 3, 2006.

e. City of Santa Clara General Plan. Available online at http://www.ci.santa-clara.ca.us/community/plans_ord_index.html. Accessed October 3, 2006.

5. Cultural Resources

Description of Baseline Environmental Conditions:

a. Identify any historical resources, as defined in section15064.5 of Title 14 of the California Code of Regulations (CEQA Guidelines or Guidelines) that may be present at or in close proximity to the site.

The City of Santa Clara Historical District, a mixed use residential and commercial area, is located approximately 0.5 miles SW of the facility.

The University of Santa Clara, also considered a historical resource by the City of Santa Clara, is located approximately 1 mile SE of the facility.

b. Identify any archeological resources, pursuant to section 15064.5 of the Guidelines that may be present at or in close proximity to the site.

There are no known archeological resources at or close to the site. The City of Santa Clara General Plan requires new developments to conduct archeological investigations, but no new developments have occurred in proximity to the site in the past ten or more years.

c. Identify any unique paleontological resources or unique geologic features that may be present at or in close proximity to the site.

None.

d. Identify any human remains, including those interred outside of formal cemeteries that may be present at or in close proximity to the site.

There are no known human remains outside of formal cemeteries known in close proximity to the site. There are, however, two cemeteries located near the site. The Mission City Memorial Park (420 N. Winchester Boulevard, Santa Clara) is located 2.25 miles south of the facility and the Santa Clara Catholic Cemetery (490 Lincoln Street, Santa Clara) is located 2.0 miles south of the facility.

e. Provide the results of any California Historical Resources Information System (CHRIS) inventory search conducted by the appropriate Office of Historic Preservation (OHP) Information Center.

No searches have been conducted of the California Historical Resources Information System. This project does not involve new construction or disturbance of the landscape.

f. Provide the results of any Registry of Sacred Sites search conducted by the Native American Heritage Commission (NAHC) and summary of any follow-up contacts with tribal representatives.

The Registry of Sacred Sites has not been searched for this project. However, this project does not include disturbance of any land.

References Used:

6. Geology and Soils

Description of Baseline Environmental Conditions:

a. Describe the sites location relative to nearby areas of known earthquake faults, delineated on the most recent Alquist-

Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence. (Refer to Division of Mines and Geology Special Publication 42).

There are no active earthquake faults in the City of Santa Clara. However, the city (and the facility) is five miles from the Hayward Fault and seven miles from both the San Andreas and Calaveras Faults.

b. Describe the sites location relative to nearby geologic units or soils that are unstable, or that might become unstable as a result of the project.

This project does not involve any soil disturbance that might cause unstable soils. The soil in the area is comprised of valley sediments.

c. Indicate if the site is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994).

The site is not located on expansive soil.

d. If waste water will be disposed and sewers are not available, indicate if the site is located on soils that are capable of adequately supporting the use of septic tanks or alternative waste water disposal systems.

The site is connected to the City of Santa Clara sewer system and will not use a septic system.

e. Provide a contour site map.

The site is flat. See attached USGS map in Section II of the Standardized Permit Application for reference.

References Used:

a. *City of Santa Clara General Plan, Chapter 5 "Environmental Conditions". Available online at http://www.ci.santa-clara.ca.us/pdf/collateral/3081-GeneralPlan-Chapter5.pdf. Accessed October 5, 2006.*

7. Hazards and Hazardous Materials

Description of Baseline Environmental Conditions:

a. Describe those aspects of the proposed project that may involve the transport, use or disposal of hazardous materials.

The facility is engaged in transport of hazardous wastes to the facility for recycling. The facility employs two trucks that pick up hazardous and non-hazardous wastes throughout Northern California daily. In addition, third party trucks make pick-ups and deliveries of hazardous and non-hazardous wastes several times daily.

Hazardous wastes and non-hazardous recyclable materials are recycled on-site through metal recovery. No disposal of hazardous materials occurs at the site.

b. Summarize the conclusions of any studies that examined any hazards to the public or the environment through reasonably foreseeable upset and accident conditions at the site that involved the release of hazardous materials into the environment.

There have been no formal studies performed by third parties of foreseeable upset and accident conditions at the site. However, many elements are in place to prevent accidents at the site involving hazardous materials. For example, the loading dock at the facility is recessed to contain spills if they occur, and spill clean up equipment is maintained in the loading area. The site is fully paved and fenced for security purposes. Processes have air pollution control equipment that is routinely inspected to ensure proper operation. All liquid handling and processing areas have proper secondary containment. The facility is underlain with a plastic liner in solid handling areas and with a geotextile liner in liquid handling areas. This design was chosen to eliminate the possibility of soil contamination from site activities.

c. Describe those aspects of the project that may emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school or other sensitive receptors.

The facility does not store or handle acutely hazardous materials. The processing of the material (tin/lead solder dross and paste, photochemicals with silver, and the non-hazardous electronic scrap and cathode ray tubes) has the potential to emit dust contaminated with lead and other metals. These processes are all vented to air emission control equipment to control process and fugitive emissions. Efficiency testing on some of the baghouses is required by the BAAQMD and

ECS Refining remains in compliance with this measure. However, these emissions do not occur within one-quarter mile of any existing or proposed school or other sensitive receptor.

d. Indicate if the site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

The site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

e. Identify and describe the conditions of any adopted emergency response plan or emergency evacuation plan that would be required during proposed project implementation.

The site maintains an emergency response and contingency plan to guide facility personnel in the event of a hazardous materials or other natural disaster. No additional emergency response plan is needed.

References Used:

8. Hydrology and Water Quality

Description of Baseline Environmental Conditions:

a. Identify and describe any water quality standards or waste discharge requirements that may apply to the proposed project. If applicable, include the name of the applicable Regional Water Quality Control Board responsible for project oversight.

The site maintains an industrial wastewater discharge permit issued by the San Jose/Santa Clara Water Pollution Control Plant (Permit number SC-144B). This permit allows batch discharge of treated photochemical wastewater after testing to ensure compliance with local discharge limits for metals and pH.

'n addition, the site maintains a Storm Water Pollution Prevention Plan and Monitoring Program according to the requirements of the General Permit held by the Santa Clara Valley Water District.

b. Indicate if the site is located over a known groundwater aquifer, and describe those aspects of the project that may require the extraction or recharge of groundwater.

The site is supplied by municipal water from the City of Santa Clara. A perched aquifer exists at the site approximately 10-30 feet below ground surface, but this aquifer does not have any apparent beneficial use. The deep aquifer used for drinking water in the City of Santa Clara is located at 500 – 800 feet below ground surface. No activities at the site currently impact the ground water quality, and they are not anticipated to influence ground water in the future.

c. Describe any site drainage features, including streams or rivers, and the capacity of existing or planned storm water drainage.

There are no streams or rivers on-site. The entire site is paved or covered in concrete. The uncovered yard areas of the site slope gradually to the street gutters, allowing rain water to run off. Rainfall on the roof is collected by gutters and directed under the yard area on its way to the street storm drains.

d. Indicate if the site is located within a 100-year flood hazard area.

The site is not located in a 100-year flood plain.

e. Indicate if the site is located in an area subject to inundation by sieche (resonant oscillation of water), tsunami or mudflow.

The site is not located in an area subject to sieche, tsunami, or mudflow.

References Used:

d. Map available at https://hazards.fema.gov/femaportal/wps/portal/!ut/p/ s.7 0 A/7 0 DCV and shows no flood hazard at ECS Refining location.

9. Land Use and Planning

Description of Baseline Environmental Conditions:

a. Identify the zoning designation and allowable land uses and limitations of the site and the applicable land use plan, policy, or regulation and agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance).

The site is zoned "Heavy Industry" by the City of Santa Clara. Land use on the site is governed by the City of Santa Clara General Plan and Zoning Ordinance.

b. Identify the applicable habitat conservation plan or natural community conservation plan and agency with jurisdiction over the project. This existing facility does not trigger any oversight from the City with regard to its conformance to the General Plan.

The site is covered by the County of Santa Clara Habitat Conservation Plan, though this is an existing facility and does not trigger any oversight by this plan.

References Used:

10. Mineral Resources

Description of Baseline Environmental Conditions:

a. Identify any mineral resources that would be of value to the region and the residents of the state that are located on or in proximity to the site.

There are no known mineral resources on or in close proximity to the site.

b. Indicate if the site is a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

The site is not a locally-important mineral resource recovery site.

References Used:

11. Noise

Description of Baseline Environmental Conditions:

a. Describe those aspects of the project that would generate noise, the anticipated noise levels, and the standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

The facility operations that generate noise are the truck traffic associated with the facility, and three air compressors that are located outdoors. The City of Santa Clara General Plan has determined that the industrial area that ECS Refining is located in is suitable for these activities and that residences are not close enough to be impacted by the noise generated at the facility.

b. Describe those aspects of the project that would generate noise excessive groundbourne vibration or groundbourne noise levels.

There are no aspects of this project that involve groundborne vibration or groundborne noise levels.

c. Describe ambient noise levels at and in the vicinity of the site.

Ambient noise levels at the property line have not been measured, but are moderate. The facility does not generate as much noise as its neighbor across the street, a drop forge.

References Used:

12. Population and Housing

Description of Baseline Environmental Conditions:

a. Describe those aspects of the project that would induce substantial population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

There are no aspects of this project that are expected to induce population growth in the area.

b. Describe those aspects of the project that would displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

This project will not displace existing housing units.

c. Describe those aspects of the project that would displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

This project will not displace any people.

References Used:

13. Public Services

Description of Baseline Environmental Conditions:

Describe to what extent the following services are currently being provided at or in proximity of the site:

- Fire protection
- Police protection
- Schools
- Parks
- Other public facilities

Fire protection and police protection are provided by the City of Santa Clara. Schools, parks and other public facilities are located in the city but are not used or impacted by ECS Refining's operations.

References Used:

14. Recreation

Description of Baseline Environmental Conditions:

Describe existing neighborhood and regional parks or other recreational facilities that are located at or in proximity of the site.

Approximately 0.5 miles east of the site is a community baseball park. Other parks are located in the city, approximately 1.5 miles south of the facility.

References Used:

15. Transportation and Traffic

Description of Baseline Environmental Conditions:

a. Describe those aspects of the project that would affect the existing transportation system at and in the vicinity of the site.

This permit renewal is not expected to affect the existing transportation system over and above the truck traffic currently generated by the facility.

b. Describe the traffic load and capacity of the street system in the vicinity of the site.

The surrounding roads near the facility are two lane city streets. A four-lane street is located approximately 0.25 miles east and west of the facility (de la Cruz Boulevard and Lafayette Boulevard).

c. Describe the level of service standard established by the country congestion management agency for designated roads or highway.

The designated agency for transportation planning in Santa Clara is the Santa Clara Valley Transportation Authority. Current projects managed by this agency are not occurring in the vicinity of ECS Refining.

d. Describe any hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) of roads or highways that may exist in the vicinity of the site.

There are no farm vehicles using the roads near the site, nor are there any sharp curves or dangerous intersections.

e. Describe emergency access routes that may exist at or in the vicinity of the site.

The site is served by city streets, which provide emergency access, if required, by fire and police departments.

f. Describe the current parking capacity existing at or in the vicinity of the site.

The ECS Refining facility parking lot has eleven spaces, three of which are designated for visitors and the remaining for employees. Additional parking is located on the street.

g. Describe any adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) that may exist at or in the vicinity of the site.

There are no bus routes that are on the streets adjacent to the site, nor are there any bicycle lanes. ECS Refining does provide a bicycle rack for ECS employees to use.

References Used:

16. Utilities and Service Systems

Description of Baseline Environmental Conditions:

a. Describe those aspects of the project that would require wastewater treatment approvals from the applicable Regional Water Quality Control Board.

There are no additional wastewater treatment approvals that would be required for this project; all approvals needed are currently in place.

b. Describe those aspects of the project that would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities.

There are no aspects of the project that would result in the construction of new water or wastewater treatment facilities.

c. Describe those aspects of the project that would require or result in the construction of new storm water drainage facilities or expansion of existing facilities.

None.

d. Identify water supplies that are available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed.

Existing water is supplied to the site by the City of Santa Clara and this source is adequate for the site's needs. No expansions that require additional water resources are planned.

e. Identify the wastewater treatment provider that serves or may serve the project, and indicate whether or not it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.

The wastewater treatment provider for this site is the San Jose/Santa Clara Water Pollution Control Plant. It maintains a capacity of 138 million gallons per day. This project will not increase wastewater discharge to the Plant, and existing capacity is adequate.

f. Describe those aspects of the project that would require disposal of materials at a landfill, identify the landfill to be utilized, and indicate if the landfill has sufficient permitted capacity to accommodate the projects solid waste disposal needs.

This project is not anticipated to increase landfill utilization.

References Used:

Certification:

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and in formation presented are true and correct to the best of my knowledge and belief.

Preparer's Signature		Date
Beverly Pester	Environmental Consultant	(541) 753-1400
Preparer's Name	Preparer's Title	Phone #

COMMUNITY PROFILE QUESTIONNAIRE

COMMUNITY PROFILE FOR **ECS REFINING**
705 REED STREET
SANTA CLARA, CA 95050
(408) 988-4386

EPA I.D. # CAD 003 963 592

1. Descrption of the proposed project (this would be the same description to be used for the CEQA Initial Study).

This project is a renewal of an existing standardized permit that authorizes ECS Refining to treat, store and recycle several metal-bearing waste streams that do not require a RCRA permit for recycling. There area two broad categories of hazardous wastes included in the permit: tin/lead solder dross and related wastes, and photochemicals with silver and related wastes. The scope of the permit is not to be changed upon the renewal, and the areas permitted for hazardous waste storage will decrease. The site is located in an area zoned for Heavy Industry and has been located at the same site since 1980. The use of the site for this operation is in accordance with City of Santa Clara guidelines for hazardous operations location.

2. Description of the site (including the address-this would be the same description to be used for the CEQA Initial Study).

ECS Refining is located at 705 Reed Street, Santa Clara, CA 95050. Its facility also occupies a portion of the parcel located directly north (710 Parker Street). The rest of the Parker Street parcel is occupied by a company affiliated with ECS Refining, United Datatech Distributors.

3. Description to the surrounding land uses and environmental resources (this would be the same information to be contained in the CEQA Initial Study).

A. Nearest schools/hospitals (in miles):

The nearest school is St. Clare's (1.1 mile SW) located at 725 Washington Street. The University of Santa Clara is approximately 1 mile SE.

The nearest hospital is located 3.2 miles SW at 900 Kiely Boulevard (Kaiser Permanente).

B. Nearest places of worship:

St. Clare's at 725 Washington Street (1.1 mile SW of the site).

C. Nearest Historical Landmarks/Archeological sites:

The University of Santa Clara is a historical landmark and is located 1 mile SE of the site. The City of Santa Clara Historical District is approximately 0.5 miles SW of the site and consists of historical homes.

D. Nearest residential area:

Approximately 0.5 SW of the site. There are a few residences closer than this, approximately 0.25 miles SW of the site.

E. Zoning designation:

Zoned MH—Heavy Industry by the City of Santa Clara.

F. Neighboring businesses:

Neighboring businesses are commercial and light to heavy industry. For specific business names, see attached mailing list.

G. Ethnicity/social economics of community (include any predominant language spoken different from English):

Spanish

4. Have there been any known inquiries (current and past) from community members, groups, etc., regarding the project? If so, please provide the names, phone numbers and addresses of key contacts.

There have not been any inquiries from community groups or members regarding the current renewal project.

5. Have there been any community meetings/hearings (current and past) regarding the project (include dates, if known)?

There have not been any community meetings or hearings regarding this standardized permit renewal. There was a public meeting held when the original standardized permit was issued in 1997; however, no members of the public attended the meeting.

6. Have there been any TV, radio newspaper coverage (current and past) regarding the project (include dates, if known)?

No television, newspaper, or radio coverage of the permit renewal has occurred.

7. Have there been any contacts/inquirers (current and past) from governmental entities (including elected officials) regarding this project (include dates, if known)?

There have not been any contacts or inquiries from governmental entities regarding this permit renewal.

8. List any specific concerns/issues raised by the community regarding the site/facility or any activities performed on the site/facility.

No specific concerns have been received in the past ten years. Previously, some neighboring businesses have been concerned about odors from the facility and truck traffic from deliveries to the facility.

9. List any anticipated concerns/issues that may be raised by the community regarding the site/facility or any activities performed on the site.

None are anticipated.

10. List any general environmental concerns/issues that exist in the community regarding the site/facility.

The facility is not aware of any general environmental concerns about its operations.

11. What public participation activities do you recommend be addressed to facilitate the expeditious issuance of the permit for this project?

The standard mailing of project description and opportunity for public comment.

12. Notification of community members, contiguous property owners, State and local agencies, elected officials and other interested parties is required so that these groups may be informed of the activities being conducted by members of their community, to inform them of the decision(s) to be made by the Department, and to allow comments by the community prior to final determinations by the Department. Please provide the names and complete addresses of all contiguous property owners. Additionally, please provide the names and complete addresses of any schools, hospital/medical facilities, churches, parks or other places of public assembly within a 1/4 mile radius of the facility. Please attach additional pages if necessary.

See attachment for facility mailing list, including adjacent businesses, property owners for adjacent parcels, and local officials.

13. Please provide the names and address of the following:

Nearest library

Name: Santa Clara City Library
Address: 2635 Homestead Road
City/State/Zipcode: Santa Clara, CA 95051
Contact Person: Adult Services
Phone Number: (408) 615-2900

Local Radio Station

Name: K-LIV News Radio
Address: 750 Story Road
City/State/Zipcode: San Jose, CA 95122
Contact Person: Newsroom
Phone Number: (408) 575-1600
Fax Number: (408) 995-0823

Local Newspaper of Major Circulation

Name: San Jose Mercury News
Address: 750 Park Ridder Drive
City/State/Zipcode: San Jose, CA 95190

ECS REFI NG
705 Reed Street
Santa Clara, CA 95050

MAILING LIST--Nearby Businesses and Property Owners

Name	Business	Street	City	State	ZIP
Hubert Forsyth		220 Montgomery Street	San Francisco	CA	94104
James L. and Kenneth R. Taggart		705 Reed Street	Santa Clara	CA	95050
David Fontana		12635 Hager Court	San Martin	CA	95046
HoVan Nguyen	A&T Auto Wreckers	735 Reed Street	Santa Clara	CA	95050
Current Occupant	Leland's Marine	601 Reed Street	Santa Clara	CA	95050
Bret Mooney	Superior Marine	621 Reed Street	Santa Clara	CA	95050
Chris Jilg	Mustang Fever	611 Reed Street	Santa Clara	CA	95050
Current Occupant		631 Reed Street	Santa Clara	CA	95050
Current Occupant		641 Reed Street	Santa Clara	CA	95050
Rocky Porras	Metalvision	661 Reed Street	Santa Clara	CA	95050
Current Occupant		630 Reed Street	Santa Clara	CA	95050
Current Occupant		640 Reed Street	Santa Clara	CA	95050
Current Occupant		651 Reed Street	Santa Clara	CA	95050
Current Occupant		671 Reed Street	Santa Clara	CA	95050
Current Occupant	West Coast Auto Body	620 Reed Street	Santa Clara	CA	95050
Leona and Theodore Boynton, Trustees		1054 Summerwind Court	San Jose	CA	95132
J.B. Sherr	Sherr Investment Company	1025 Barriolhet	Hillsborough	CA	94010
Marcus Petta	Able Body Shop	660 Reed Street	Santa Clara	CA	95050
Western Air Switch Div		845 Reed Street	Santa Clara	CA	95050
Cal-Coast Signs		845 Reed Street	Santa Clara	CA	95050
M & G Instrument Company		845 Reed Street	Santa Clara	CA	95050
Western Forge & Flange		780 Reed Street	Santa Clara	CA	95050
Zenitram Finishing, Inc.		760 Parker Street	Santa Clara	CA	95050
Automated Metal Finishing		770 Reed Street	Santa Clara	CA	95050
JF Manufacturing		762 Reed Street	Santa Clara	CA	95050
James Hyland	Manufacturer's Glass	650 Reed Street	Santa Clara	CA	95050
Motorspeed West		1925 Grant Street, Suite 1	Santa Clara	CA	95050
RMD		1925 Grant Street, Suite 3	Santa Clara	CA	95050
SV Precision		1925 Grant Street, Suite 4	Santa Clara	CA	95050
Silverstre & Song		1925 Grant Street, Suite 5	Santa Clara	CA	95050
Smart Auto Glass		1945 Grant Street, Suite 1	Santa Clara	CA	95050
R & D Tool Specialist, Inc.		1945 Grant Street, Suite 3	Santa Clara	CA	95050
L & L Gutter		1945 Grant Street, Suite 4	Santa Clara	CA	95050

ECS REF[illegible]NG
705 Reed Street
Santa Clara, CA 95050

MAILING LIST--Nearby Businesses and Property Owners

Name	Business	Street	City	State	ZIP
General Mechanical		1945 Grant Street, Suite 5	Santa Clara	CA	95050
Kapa Auto Body		2005 Grant Street	Santa Clara	CA	95050
Young Printing		825 Parker Street	Santa Clara	CA	95050
Chaya's Auto Service		829 Parker Street	Santa Clara	CA	95050
South Bay Mobility		730 Parker Street	Santa Clara	CA	95050
Jos. J. Albanese Cement Contractor		840 Parker Street	Santa Clara	CA	95050
Jos. J. Albanese Cement Contractor		767 Parker Street	Santa Clara	CA	95050
K Autobody		740 Parker Street	Santa Clara	CA	95050
Mullen Tile		850 Parker Street	Santa Clara	CA	95050
Machine Craft		850A Parker Street	Santa Clara	CA	95050
Property Owner		P.O. Box 26937	San Jose	CA	95159-6937
Property Owner		P.O. Box 327	Santa Clara	CA	95052-0327
Property Owner		118 Los Patios	Los Gatos	CA	95032
Property Owner		1530 Meridian Avenue, Suite 122	San Jose	CA	95125-5318
Property Owner		821 Hillcrest Blvd.	Millbrae	CA	94030
Property Owner		1855 Hamilton Avenue, Suite 200	San Jose	CA	95125

ECS Refi
705 Reed Street
Santa Clara, CA 95050

MAILING LIST - GOVERNMENT OFFICIALS

Name	Title	Address	City	State	ZIP
Elaine Alquist	13th Senatorial District	100 Paseo de San Antonio, Ste. 209	San Jose	CA	95113
Sally J. Lieber	22nd Assembly District	274 Castro Street, Suite 202	Mountain View	CA	94041
Rebecca Cohn	24th Assembly District	100 Paseo de San Antonio, Ste. 319	Campbell	CA	95008
Michael Honda	15th Congressional District	1999 S. Bascom Avenue, Suite 815	Campbell	CA	95008
Patricia Mahan	Mayor	1500 Warburton Avenue	Santa Clara	CA	95050
Dominic Caserta	City Council	1500 Warburton Avenue	Santa Clara	CA	95050
Pat Kolstad	City Council	1500 Warburton Avenue	Santa Clara	CA	95050
Will Kennedy	City Council	1500 Warburton Avenue	Santa Clara	CA	95050
Kevin Moore	City Council	1500 Warburton Avenue	Santa Clara	CA	95050
Jamie L. Matthews	City Council	1500 Warburton Avenue	Santa Clara	CA	95050
Jamie McLeod	Vice-Mayor	1500 Warburton Avenue	Santa Clara	CA	95050
Jennifer Sparacino	City Manager	1500 Warburton Avenue	Santa Clara	CA	95050
Geoff Goodfellow	City Planning	1500 Warburton Avenue	Santa Clara	CA	95050
Chief of Police	City of Santa Clara Police Department	1541 Civic Center Drive	Santa Clara	CA	95050
David R. Parker, Ph.D.	City of Santa Clara Fire Department	777 Benton Street	Santa Clara	CA	95050
Public Works Manager	City of Santa Clara Public Works Department	1500 Warburton Avenue	Santa Clara	CA	95050
City of Santa Clara	Water & Sewer Utility Department	1500 Warburton Avenue	Santa Clara	CA	95050
Superintendent	Santa Clara Unified School District	P.O. Box 397	Santa Clara	CA	95052
Santa Clara County	Office of Toxics Enforcement	P.O. Box 28070	San Jose	CA	95159-8070
	Santa Clara County Planning & Development	70 W. Hedding	San Jose	CA	95110
City Clerk	City Hall, City of Santa Clara	1500 Warburton Avenue	Santa Clara	CA	95050
Fire Chief	Fire Station No. 1	777 Benton Street	Santa Clara	CA	95050
Donald F. Gage	Santa Clara County Supervisor	70 W. Hedding	San Jose	CA	95110
Blanca Alvarado	Santa Clara County Supervisor	70 W. Hedding	San Jose	CA	95110
Pete McHugh	Santa Clara County Supervisor	70 W. Hedding	San Jose	CA	95110
James T. Beall, Jr.	Santa Clara County Supervisor	70 W. Hedding	San Jose	CA	95110
Liz Kniss	Santa Clara County Supervisor	70 W. Hedding	San Jose	CA	95110
Amber Harmon	Department of Toxic Substances Control	700 Heinz Avenue, Suite 200	Berkeley	CA	94710

Santa Clara
All-America City
2001

Planning Division

November 6, 2006, 2006

ECS Refining
C/o: Mr. Kenneth Taggart
705 Reed Street
Santa Clara, CA 95050

Subject: Zoning Verification for 705 Reed Street and 710 Parker Street (APN: 224-38-024 and 224-38-023)

Dear Mr. Taggart:

This letter is provided in response to your request for zoning verification of the properties noted above. The properties are designated for Heavy Industrial use in the General Plan and are currently zoned as Heavy Industrial (MH). Attached are the regulations related to the MH Zoning District for your reference.

According to the request letter, ESC Refining recycles electronic products, tin/lead solder dross and paste, as well as photographic waste. According to the City's Zoning Ordinances, Chapter 18.50, any manufacturing, processing, assembling, or storage uses that, in the opinion of the Planning Commission, shall not be objectionable by reason of the production of offensive noise, smoke, ordor, dust, vibrations, and industrial wastes. ECS Refining comply with the ordinances for heavy industrial uses. There is no land use permitting requirements for the above properties.

In addition, Hazardous Material Division of Fire Department commented on the recycled production on site. The use of the properties met the intent of the Heavy Industrial Zoning Districts.

There are no known zoning enforcement actions currently being taken regarding the requested properties. Please check with Building Inspection for any building violation at (408) 615-2420.

Should you have questions or require additional information, please contact Marge Sung at the Planning Division at (408) 615-2450.

Sincerely,

Gloria Sciara

Gloria Sciara, AICP
Interim Manager of Development Review
Attachments
Cc: Beverly Pester
GS/ms I:\PLANNING\2006\SUBJECT\Zoning Verification 2006\705 Reed St.doc

1500 Warburton Avenue
Santa Clara, CA 95050
(408) 615-2450
FAX (408) 247-9857
www.ci.santa-clara.ca.us

December 20, 2006

Ken Taggart
ECS Refining
705 Reed Street
Santa Clara, CA 95050

RE: Preliminary P.E. Certification for Hazardous Waste Units

Dear Mr. Taggart:

This document provides preliminary certification of Hazardous Waste Units identified at the ECS Refining ("ECS") facility at 705 Reed Street, in Santa Clara, California ("Facility"). This submission is in fulfillment of the requirement for certification by an "independent, qualified professional engineer registered in California" in support of the ECS standardized permit application, and contains certifications of existing elements and itemized plans for specific facility upgrades to be performed prior to finalization of the facility permit in December of 2007 and final certification. The units reviewed in this document are identified on the attached Figure 1, "Facility Layout – Unit Inventory".

UNIT 1 PHOTOCHEMICAL TREATMENT UNIT (INCLUDING VACUUM EVAPORATION UNIT 3)

The photochemical treatment unit (Unit 1) at the Facility is used to process liquid photographic waste, and is shown on attached Figure 2, Process Flow/Piping Layout-Photochemical Treatment Unit 1. The process consists of transferring liquid photographic waste from drums into holding tanks 1 and 2 for temporary storage. Waste is then transferred into settling tank 3 for chemical precipitation. The resulting fluid is decanted and may follow one of two paths: "mega filtration", testing, and discharge or disposal, or vacuum evaporation. If transferred directly from the settling tank to the "mega-filter", it is tested for silver and either discharged under permit to the POTW or shipped off-site as a non-hazardous waste. The waste may also be run through a double-effect evaporator (vacuum evaporation unit) that operates under vacuum to distill water from photochemicals with silver and other wastewaters with metals. The steam distillate from the first effect or shell of the evaporator is used to provide the heat to distill material in the second shell. The unit is completely enclosed, eliminating the need for air pollution control. Following evaporation, the distillate is filtered through the mega-filter, tested for silver and either discharged under permit to the POTW or shipped off-site as a non-hazardous waste.

Storage tanks within Unit 1 are above ground and contained in two bermed secondary containment structures, the north (Area IIa) and south area (Area IIb). The following tanks are included in Unit 1 and in Unit 3:

Current Tank Number	Capacity (gal.)
Area IIa	
A	3,000
B	3,000
~~D~~	~~1,050~~
~~E~~	~~750~~
~~F~~	~~750~~
Subtotal Volume	6,000
Area IIb	
1	2,500
2	2,500
3	2,500
C	3,200
Subtotal Volume	10,700

Note:
Tanks grouped by secondary containment structure

Tanks D, E, and F, currently on a second floor mezzanine within the Area IIa, are slated for removal prior to December 2007. Tanks 3 and C are slated for replacement prior to December 2007.

Engineering Certification of Tank Integrity

Tanks 1, 2, A, and B were installed in 2001 and are cone bottom premium high density polyethylene tanks manufactured by Norwesco. Norwesco literature were reviewed and the tanks were directly observed during preparation of this certification. The evaporator is constructed of stainless steel and polyethylene.

1. Tanks Strength Evaluation: The tanks are certified by the manufacturer (Norwesco) for storage of liquid waste meeting specific gravity of 1.5. According to ECS, the photographic waste stored within these tanks exhibits a specific gravity of 1.2, well below the design capacity of the tanks. Therefore, based upon manufacture specifications, the tanks are being used appropriately and have sufficient strength to assure that they do not collapse or rupture under intended usages. The evaporator is a continuous treatment unit and does not store large quantities of fluid.

2. Chemical Compatibility: A Based upon a review of available literature, the HDPE tank material is compatible with photographic solutions, with no indication that the serviceability of the tanks would be impaired by storage of such chemicals. This is also true of stainless steel and PVC.
3. Tank System Piping: Tank system piping is composed of PVC. This material is compatible with photographic waste. All system piping is 1-inch diameter schedule 80 PVC, with the exception of the piping for the drum pump, which is 1 1/2" schedule 80 PVC.
4. Pump Descriptions: The following pumps are installed in Unit 1:
    a. Drum Pump Station (Pump #1): 1 1/2 HP self priming centrifugal pump with strainer.
    b. Discharge Pump from Tanks 1&2 (Pump #2): Iwaki MD70
    c. Recirculation pump for precipitation Tank 3 (Pump #3) Wilden M2
    d. Discharge pump for Tank 3 (Pump#4) Iwaki MD70
    e. Discharge pump for Tank C (Pump #5) Iwaki MD70
    f. Inside containment sump pump (Pump #6) Wilden M2
    g. Outside containment sump pump (Pump #7) Wilden M2
5. Design Standard(s): Tanks and ancillary equipment were constructed with in-house design standards incorporating appropriate use criteria from equipment suppliers.
6. Spill prevention and overfill equipment: All tanks in Unit 1 are equipped with high level alarms that sound if triggered by high material levels in any tank. Liquids are transferred under operator control at all times. Operators are trained to respond to system alarms by cutting off the feed pumps.
7. Corrosion Protection Measures: Tanks and tank stands in Unit 1 are constructed with non-corrosive HDPE or are coated with epoxy. Metal seismic tie downs will be recoated with epoxy following replacement of tanks 3 and C in 2007.
8. Structural Condition: No structural damage or inadequate construction such as cracks punctures or damaged fittings was observed. Prior to December 2007, tanks (3) and (C) will be replaced and a pressure test shall be performed on the system and ancillary piping. Furthermore, seismic certification will be performed following installation of replacement of tanks 3 and C and removal of tanks D, E, and F prior to December 2007.
9. Leak Detection Equipment: A Hypalon liner is installed beneath the concrete containment structures of Unit 1. A moisture sensor is installed between the concrete pad and the Hypalon liner to determine if any liquid has migrated through the concrete.
10. Documented Age And Estimated Remaining Service Life Of Tank System: Tanks 1 and 2 were installed in 1997. Tanks A and B were installed in 2001. Tanks 3 and C will be replaced, and tanks D, E, and F will be removed prior to December 2007. based on findings. Per the manufacturer's literature, the HDPE tanks do not have anticipated service lifetimes due to the variable effects of environmental factors such as light exposure and stored materials. In the case of Unit 1, the tanks are sheltered from direct light and contain material that is very compatible with the tank material. Therefore, the

tanks must be visually inspected for signs of wear and tear such as bulging and bubbling. No signs of significant deterioration were noted in tanks 1, 2, A, or B.

11. Leak Testing: Leak testing of tanks and ancillary equipment will be performed prior to December 2007 after installation of replacement tanks and removal of tanks D, E, and F.

Engineering Certification of Secondary Containment

1. Secondary Containment Volume: The calculated secondary containment volume for the north and south bermed areas are as follows:
    a. South Bermed Area: Calculated volume 10,690 gallons (note volume for storage of 160 55-gallon drums removed)
    b. North Bermed Area: Calculated volume 3,820 gallons (note volume for storage of 20 55-gallon drums removed)
    c. The volume of both bermed areas are greater than either 10% of the total volume of all tanks or 100% of the largest tank volume contained in the bermed area. Because the north bermed area (Unit IIa) is indoors and the south bermed area (Unit IIb) is covered and therefore not exposed to rainfall, calculation of volume of rainfall from a 24-hour, 25-year rainstorm is not included within this calculation.
2. Surface Coating/Impervious Barrier: Prior to December 2007 and coordinated with replacement of tanks 1 and 2, the containment areas for Unit IIa and Unit IIb shall be recoated with epoxy sealant to make an impervious barrier and prevent migration of spilled liquids.
3. Secondary Containment Structural Strength: The secondary containment structure has been constructed with sufficient structural strength and thickness to prevent failure due to pressure gradients, physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation. This conclusion is supported by the continued good condition of the structures after years of service without significant cracks or gaps.
4. Verification Of Leak-Detection System: The leak detection system utilizing a Hypalon liner, moisture sensor beneath the concrete secondary containment structure, and leak sensor indicators located next to both containment sumps has been verified. ECS internal procedures as described include daily monitoring of leak sensors.
5. Verification Of Slope Design: The secondary containment structures in Units IIa and IIb have been inspected and found suitable for drainage of liquid into containment sumps equipped to remove liquids resulting from leaks or spills. Both units are sheltered from precipitation.

UNITS 7 (HOT POT FURNACE), 20 (600 CRUCIBLE FURNACE), AND 21 (430 CRUCIBLE FURNACE, ALL UNITS ARE GAS FIRED CRUCIBLE FURNACES)

Units 7, 20, and 21 (Figure 1) are gas-fired crucible furnaces with removable and replaceable silicon carbide crucibles used to melt precious metal-bearing scrap or waste with fluxing agents to recover precious metal. These units do not fit the standard definition of "tanks", are not connected to external piping systems, do not pose a threat for releases to the environment as any spilled metal would either be solid or rapidly cooling molten metal, and are designed and used for their intended purpose of melting metal. They units differ in size of the crucible: the Hot Pot (Unit 7) is the smallest and holds about 50 lbs of silver flake; the 600 Furnace (Unit 20) capacity is listed by the manufacture in units of aluminum capacity as 600 lbs and is intended for melting tin/lead solder dross; and the 430 Furnace (Unit 21) is listed by the manufacture in units of aluminum capacity for 430 lbs aluminum and is intended for melting tin/lead solder dross. The furnaces are connected to a baghouse for air pollution control. The furnaces appear to be in good working condition and are routinely inspected by ECS personnel.

UNITS 8 (SOLDER POT) AND17 (3000 POT) (GAS FIRED KETTLE OR POT FURNACES)

These units are gas-fired kettle or pot furnaces with fixed steel kettles. The kettle is contained in a steel shell lined with refractory brick. All are used to melt tin/lead solder dross at a low temperature relative to the crucible furnaces. These units do not fit the standard definition of "tanks", are not connected to external piping systems, do not pose a threat for releases to the environment as any spilled metal would either be solid or rapidly cooling molten metal, and are designed and used for their intended purpose of melting metal. They differ in size of the kettle: the Solder Pot (Unit 8) capacity is 10,000 lbs of tin/lead solder dross, and the 3000 Pot Furnace (Unit 17) capacity is 3,000 lbs of tin/lead solder dross. The furnaces appear to be in good working condition and are routinely inspected by ECS personnel.

UNIT 15 (TRAY FURNACE--GAS FIRED ENCLOSED FURNACE WITH AFTERBURNER)

This unit is a gas-fired enclosed furnace with afterburner used to treat tin/lead paste and wipes. This unit does not fit the standard definition of "tank", is not connected to an external piping system, does not pose a threat for releases to the environment as any spilled metal would either be solid or rapidly cooling molten metal, and is designed and used for its intended purpose of melting metal. The material is placed in steel trays (each of capacity approximately 25 lbs of solder metal) and placed in the burning chamber (lined with refractory brick). The flame directly hits the material to be burned. Any organic gases released during the combustion are burned in the afterburner (operates at minimum 1900F). Recovered metal is poured manually from the

trays into molds. The unit is constructed of steel. The furnace appears to be in good working condition and is routinely inspected by ECS personnel.

UNIT 10 STORAGE AREA I

This area is a small 10' x 5" area intended for storage of up to 20 drums of solder dross. Because this is a solid material, no special containment structures are required and no threat of release to the environment is posed by the unit.

UNIT 11A (STORAGE AREA IIA)

Unit 11a (Storage Area IIa) is located within the north bermed area of Unit 1 and includes storage of 20 55-gallon drums of liquid photographic waste. This unit is wholly contained within Unit 1 and therefore the secondary containment/spill protection measures previously described are applicable. The volume of of the containment space occupied by 20-drums was removed from the available volume of the secondary containment calculation for Unit 1 and no additional certification is necessary.

UNIT 11B (STORAGE AREA IIB)

Unit 11b (Storage Area IIb) is located within the south bermed area of Unit 1 and includes storage of 160 55-gallon drums of liquid photographic waste. This unit is wholly contained within Unit 1 and therefore the secondary containment/spill protection measures previously described are applicable. The volume of the containment space occupied by 160-drums was removed from the available volume of the secondary containment calculation for Unit 1 and no additional certification is necessary.

UNIT 13 (STORAGE AREA IV)

Unit 13 (Storage Area IV) is intended for storage of 700 drums with the first three rows allowing liquids to be stored on secondary containment pallets. This storage area is directly across from the facility receiving area and is utilized for any materials accepted by ECS Refining, including solid and liquid wastes. Spill control equipment is staged in the receiving area for ready access, liquid waste is stored on containment pallets, and the loading dock area is recessed and does not have any drains so any liquid materials released in the area would be prevented from escaping.

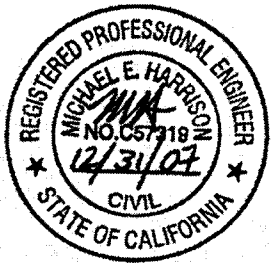
UNIT 23 DRUM WASH

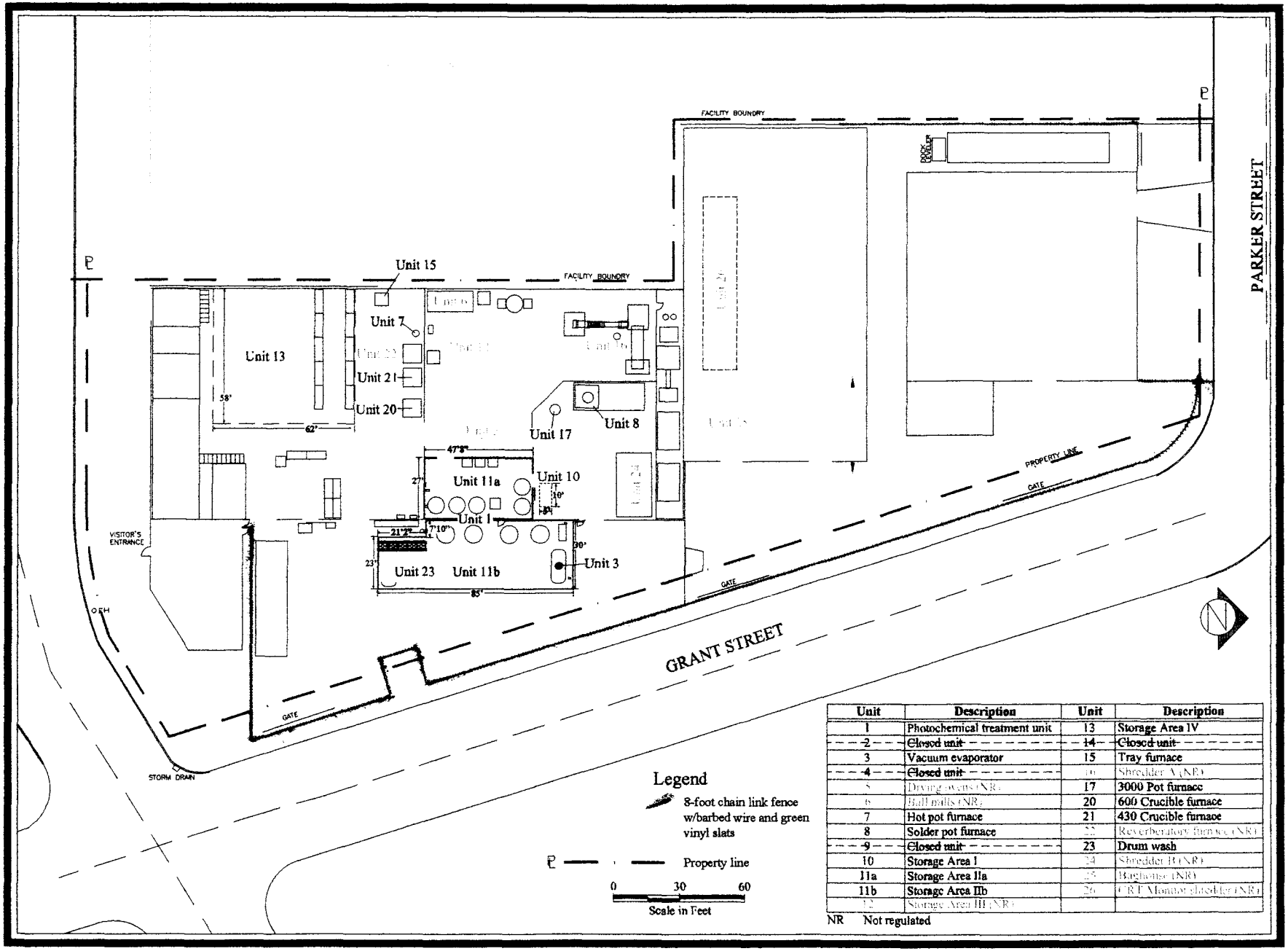
This unit is used to wash out poly drums that held photochemical waste. The drums are intended for reuse. The unit consists of a containment pallet that has poly "walls" installed on 3 sides. The operator pressure washes the drums on the pallet and the pallet collects the rinse water, which is then pumped into the treatment system (Unit 1). It doesn't involve hazardous waste treatment, and is wholly located in Area IIb (the south containment area). This unit does not include any tanks, and is wholly contained within the secondary containment system described previously in the discussion of Unit 1. Therefore, the certification of the containment for Unit 1 is applicable for this unit.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to be the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Respectfully Submitted,

Michael Harrison, P.E.
Principal





Unit	Description	Unit	Description
1	Photochemical treatment unit	13	Storage Area IV
~~2~~	~~Closed unit~~	~~14~~	~~Closed unit~~
3	Vacuum evaporator	15	Tray furnace
~~4~~	~~Closed unit~~	16	Shredder A (NR)
5	Drying ovens (NR)	17	3000 Pot furnace
6	Ball mills (NR)	20	600 Crucible furnace
7	Hot pot furnace	21	430 Crucible furnace
8	Solder pot furnace	22	Reverberatory furnace (NR)
~~9~~	~~Closed unit~~	23	Drum wash
10	Storage Area I	24	Shredder B (NR)
11a	Storage Area IIa	25	Baghouse (NR)
11b	Storage Area IIb	26	CRT Monitor shredder (NR)
12	Storage Area III (NR)		

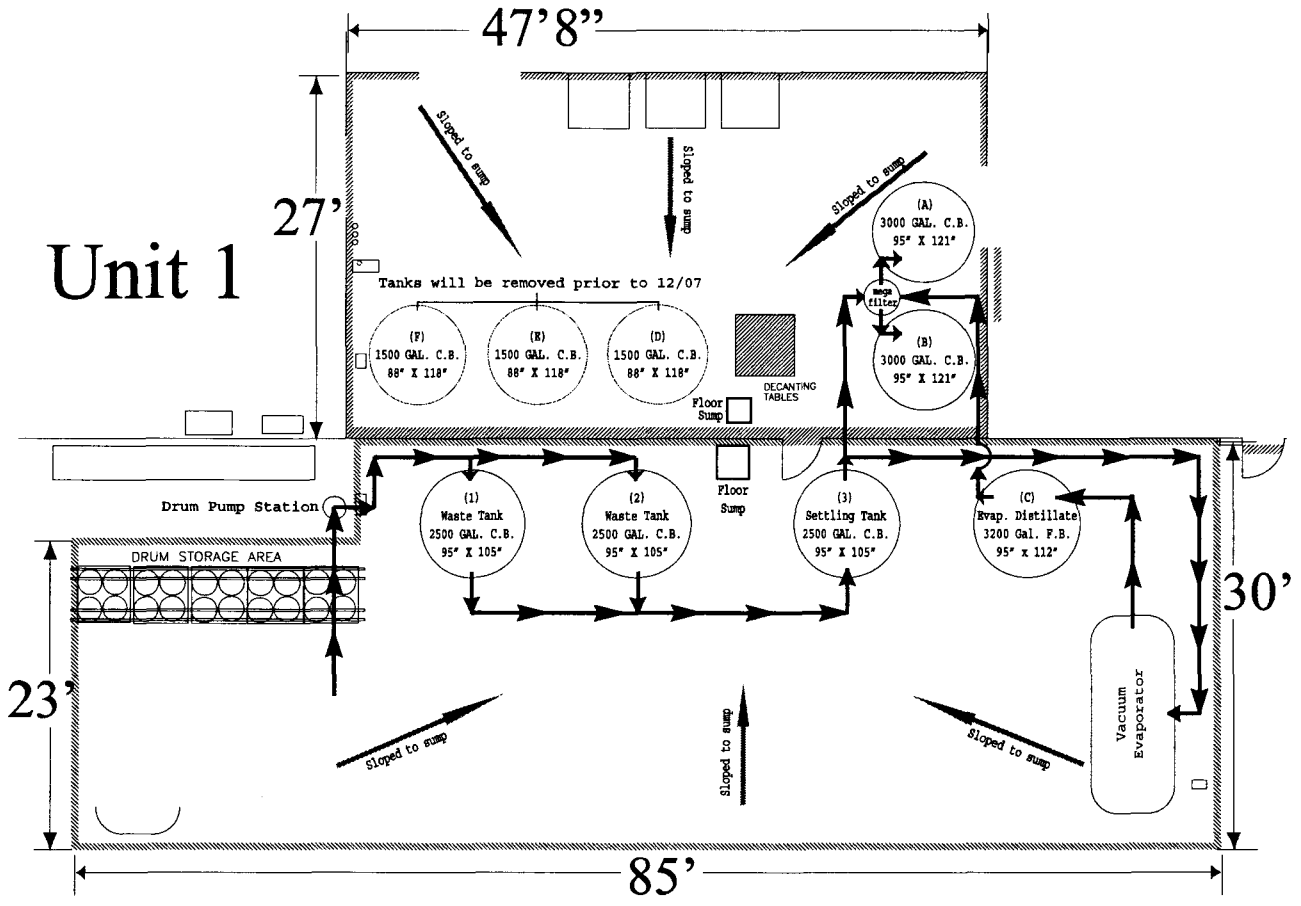
NR Not regulated

ECS REFINING

FACILITY LAYOUT - UNIT INVENTORY

ECS Refining
705 Reed Street
Santa Clara, CA 95050

Figure 1



ECS REFINING

PROCESS FLOW/PIPING LAYOUT-PHOTOCHEMICAL TREATMENT UNIT 1

ECS Refining

705 Reed Street

Santa Clara, CA 95050

Figure

2